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| APPLICATION NO.   | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |           |               |                  |  |
|---|---------------|----------------------|---------------------|------------------|-----------|---------------|------------------|--|
| 10/649,347  | 08/27/2003    | Steven R. Reznak     | 03072               | 4170             |           |               |                  |  |
| <div>7590<br/>Martha Ann Finnegan, Esq.<br/>Cabot Corporation<br/>157 Concord Road<br/>Billerica, MA 01821-7001</div>                                   |               |                      |                     |                  |           |               |                  |  |
| <div>11/17/2009</div>   |               |                      |                     |                  |           |               |                  |  |
| <div>EXAMINER<br/>ALEXANDER, LYLE</div>   |               |                      |                     |                  |           |               |                  |  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/649,347

**Applicant(s)**

REZNEK ET AL.

**Examiner**

LYLE A. ALEXANDER

**Art Unit**

1797

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 7-13, 15-19 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-13, 15-19 and 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

Claims 1-3, 7-13, 15-19 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barthel et al. or Wideman et al.

Wideman et al. teach a method of making a composition comprising carbon black, silica and metal oxide particles in specific size ranges. Torque and BET values monitored to determine the desired characteristics of the composition and have been read on the claimed combination of *"morphological values"* and *"interfacial potential properties"*.

Barthel et al. teach a method of preparing carbon black and silica at the specific BET - method surface area (DIN 66131 and 66132) where these characteristics are determined by gas adsorption or inverse gas chromatography. The taught "BET" has been read on the claimed combination of *"morphological values"* and *"interfacial potential properties"*.

Barthel et al. and Wideman et al. are silent to the claimed ranges of the morphological values within about 10%, the interfacial potential property value within about 50% and adjusting the process variables to achieve the desired properties.

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and predictable results. In a manufacturing process the selection of the acceptable range of product is a result effective variable having the well known and predictable result of providing a product within the manufacturing specification.

Specifically, the morphological properties relate to the size of the particle. Okado et al. and Wideman et al. teach specific ranges of particulate size, volume resistivity and/or BET values. It is essential when selling a product for it to conform to the required size, resistivity or BET ranges. It would have been within the skill of the art to modify Okado et al. and only select/sell particles that are within a 10% size/morphological range and within 50% of the resistivity or BET range as optimization of a result effective variable. Also, it is result effective variable to adjust the appropriate input to adjust the desired process variable as optimization of a result effective variable. It would have been within the skill of the art to further modify Okado et al., Barthel et al. or Wideman et al. and adjust at least one process variable to achieve the desired result.

These reference are silent to the adjusting the process variable to achieve the desired characteristics of the particles and the specific testing by "wicking rate."

The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and predictable results. In a manufacturing process the selection of the acceptable range of product is a result effective variable having the well known and predictable result of providing a product within the manufacturing specification. It is essential when selling a product for it to conform to the required size, resistivity or BET ranges. Also, it is result effective variable to adjust the appropriate input to adjust the desired process variable as optimization of a result effective variable. It would have been within the skill of the art to further modify Okado et al., Barthel et al. or Wideman et al. and adjust at least one process variable to achieve the desired result.

Testing a particulate material by the speed or distance the particulate solution "wicks" is notoriously well known in the art (e.g. for example paper chromatography). Wicking tests are advantageous because they do not require sophisticated equipment and can be performed by the layperson.

It would have been within the skill of the art to modify Okado et al., Barthel et al. or Wideman et al. and use a well known method to test particulate, such as a wicking test, to gain the above advantages.

### ***Response to Arguments***

Applicant's arguments filed 12/12/08 have been fully considered but they are not persuasive.

Applicant's remarks have been convincing with respect to the 35 USC 112 first paragraph rejections and these rejections have been vacated. There are currently no 35 USC 112 rejections that require further comment by the Office.

The 8/26/09 Declaration has been fully considered. The Declaration does not have any factual data, but rather the opinions of Dr. Sheldon. Dr. Sheldon's remarks are appreciated and are held in high esteem. However, MPEP 716.01(c) III states "although an affidavit or declaration which states only conclusions may have some probative value, such an affidavit or declaration may have little weight when considered in light of all the evidence of record in the application. In re Brandstadter, 484 F.2d 1395, 179 USPQ 286 (CCPA 1973)". The 8/26/09 Declaration has been given the appropriate weight as representing the opinion of Dr. Sheldon's interpretation and understanding of the instant claims and the cited prior art and does not have sufficient

probative value to overcome the rejections of record. Additionally, paragraph 5 line 3 of the 8/26/09 Declaration states that Dr. Sheldon is an "expert". The standard for patentability is "one of ordinary skill in the art" and the opinions of an "expert" may not be relevant to the ultimate decision of patentability.

Applicant states the instant invention resolves the problems associated with "within spec" materials that do not perform as expected. The instant claim language is directed to various types of measurements that are taught by the cited prior art. The Office maintains the cited prior art teaches methods of particulate measurements that are indistinguishable from the instant claims.

Applicant state Wildeman et al. teaches a "conventional BET method" that measuring torque on a compounded rubber sample and not on the claimed particulate sample. The Office maintains the instant claim language is sufficiently broad and not specific to the state of matter of the particles and has been properly read on the polymerized particles taught by Wilderman et al.

Applicant states Barthel et al. does not provide measurements of interfacial properties as presently described in paragraph[043] of the specification. These remarks are not commensurate in scope with the pending claims because the specific limitations of paragraph[043] are presently not claimed. Applicant states " the Examiner appears to take the position that if the same word is found in the reference ... " (e.g. BET) is does not necessarily read on the instant claims. In the absence of claiming the actual analysis intended by the claimed "BET", the Office maintains the claimed BET analysis is indistinguishable from the taught BET analysis.

Applicant traverse the 35 USC 103 rejections on the grounds the cited reference fail to teach or suggest that interfacial properties are result effective parameters. The court decided In re Boesch (205 USPQ 215) that optimization of a result effective variable is ordinarily within the skill of the art. A result effective variable is one that has well known and expected results as explained in the Office action. The Office maintains the 35 USC 103 rejections are proper.

Applicant states the cited prior art fails to teach the claimed simultaneous "...maintaining at least one morphological property ..." and "... maintaining at least one interfacial property ...". In the absence of more specifically claiming what these properties are, the Office maintains the rejections of record are proper.

Applicant states the cited prior art does not predict the success of claimed method. These remarks are not commensurate in scope with the pending claims.

Applicant states the Office has not provided any evidence the specific testing by "wicking rates exists". The Office has cited a reference that teaches "wicking rates" are a known method of analysis.

Applicant state the Office cannot hold that chromatography wicking is equivalent to the claimed wicking. In the absence of better defining what is intended by the claimed wicking, the Office maintains the claims are sufficiently broad to have been equated to chromatography wicking.

**Conclusion**

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Young et al. (USP 6,107,538) teach in columns 14-15 lines 64-33 respectively using vertical wicking rate analysis to determine BET parameters.
2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **LYLE A. ALEXANDER** whose telephone number is (571)272-1254. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/

Primary Examiner, Art Unit 1797